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The Effects of Multiple Reformed Courses on Freshman Cohorts<sup>1</sup> ROBERT B. LYNCH, University of California, Davis, EMILY A. WEST, University of New Haven, WENDELL H. POTTER, University of California, Davis — Beginning fall 2007 successive 48-student cohorts of entering freshmen bio-science majors have been enrolled in reformed course sections to test the proposition that students who were exposed simultaneously to both math and science courses, which explicitly stress sense-making rather than memorization, would more quickly develop habits of mind and approaches to learning that are more productive and useful than the memorization mindset that is so typical of entering freshmen. Preliminary results show positive performance gains of the cohort students in subsequent courses. Variations in the sequence of course offerings has allowed the separate analysis of the impact of taking a radically reformed physics course even on immediately following science courses in the freshman year. Longitudinal performance data through fall-quarter 2009 for cohorts entering in 2007 and 2008 will be presented as well as qualitative interview and survey data.

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